



# MADISON AREA ATARI USERS GROUP NEWSLETTER

P.O. BOX 56191, MADISON, WI 53705

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## A Word or Two From the Chair

Once again it's time to sit down and type a few lines for the newsletter. I've been busy lately, between work and all the things that seem to materialize with a growing family. I hardly have time to turn on my Atari and enjoy a game or two. Let's see... I'm building a battery backup for the club's BBS machine. Also a parallel interface to rs-232 port device. (the clock doesn't quite work yet...). Anyone have a bad power supply for their

800xl laying around? (I need the DIN connector, otherwise it's radio shack time again.) One of the members is scaring up a surge protector for the BBS machine. Hopefully we can tie all this hardware together for a working system in the not to distant future. I guess the most heartening part of all this is the volunteering of help and service that we're getting... (A well done to all those involved, you know who you are!!) On another note. The membership drive will be starting officially in January. However Nancy would be happy to take

your membership dues starting at the Dec. meeting. We are a non-profit organization so I think your dues are tax deductible (I always claim them!) So maybe it would be in your best interest to get paid up before the 1st of the year. We will be holding a raffle again at the Feb. meeting and your membership card number will be used in the drawing!! Well, I guess I've been sufficiently long winded here. I hope to see you all at the next meeting (Hopefully we won't be digging out of a major snowstorm by then.)

## The Baud Warrior

by Craig Radi

As most of you have guessed by now, the MAAUG BBS is experiencing technical difficulties, or in other words, CRASH CITY! Some may say, "Get rid of that bum SYSOP!", or "Now what did that Radi guy do?" Or others will take the soft approach and say, "He seems like such a nice guy!", or "Must be that curse that Ranoble is talking about!" While some or most of this is true, this cursed bum has had some troubles never the less. For those who have never used the BBS, you can now skip to the next article.

Our nice president Paul

Schettler is currently working on a battery backup system for the board which we believe is getting uneven power to the power supply. This results in the board crashing anytime the furnace kicks in, which in this building seems like all of the time. While Paul and Kurt Gritner are also working on a handler for the BBS program to upgrade to 1200 BAUD, the board remains down till the backup system can be installed. Till then you can leave articles and club related news on MOOSIE to

the appropriate person. I hope that next month will bring better news. Till then Happy Computing!

MERRY CHRISTMAS!



**The December Meeting  
will be on Dec 8, room  
225 at 7PM at West  
High School, Madison**



# Wizards Workshop

## Programming tips for the Atari 8-bits

Written by: Mike Leemkuil

This months topic:

### Reading Joysticks from BASIC

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Hello all, This will be the first of many articles on programming for the 8-bit Atari's. In months to come, I hope to cover topics such as: Display lists, Character sets, M/P Graphics, and Sound. If there happens to be anything that you would like to see here, just mention it to Craig Radi or I, or leave me a message on the MAAUG BBS, under the name Wizard. Well, on to the article, as some of you may know, joysticks are usually accessed by the STICK command. (Ex. S-STICK(var.)) The var. being a number between 0-3 determining the port number 1 to 4. The variable S returns the value of the joystick at the time it is read in the program.) As this is the most common way the joystick is read, most people stick with this, as it is simple, and easy to understand. However, this is the slowest way to read the joystick, and if several reads are needed throughout the program, this will slow execution. There are many ways in which this can be speeded up. There are memory locations that the STICK command uses, these are locations 632-635, these locations can be PEEKed directly, speeding up the joystick reading process. There are also locations 644-647, which are used in place of the STRIG(var.)

command, to read the triggers.

To use these locations, simply use a command like this: S-PEEK(632) The variable S will return the value of the stick position, using the same format as the STICK command, by the same token, the locations for the triggers will read the same as the STRIG command. If you are not familiar with the Joystick reading format, see the end of this article where I have supplied a small sketch of it. Instead of using IF-THEN statements, which could also slow down program execution, you could also add it to a GOTO statement like this: 10 GOTO PEEK(632), 100 where the program could jump to a line based on the location of joystick 1. By the way, as to the speed of this method, when tested against other



routines out there, this method proves almost, if not as fast, as most M/L routines out today. Lastly, and my personal favorite, is using Boolean algebra to speed up my program, now I know what your saying, "Boole-What?", well, avoiding going onto a long explanation, Boolean algebra is a simple

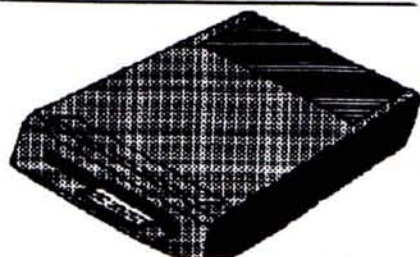
"Yes-No" type of programming, where the computer decides whether or not a statement is true or false, and responds with a 1 or 0. The best thing about using this method, is if you are using X and Y locations, and wish to update them, you only need to use one line of code. (Ex. S-STICK(0)DX-(S-5 OR S-6 OR S-7)-(S-9 OR S-10 OR S-11):DY-(S-5 OR S-9 OR S-13)-(S-6 OR S-10 OR S-14) Now, that may look greek to you, but it speeds up execution quite a bit, where DX and DY equal 1,0, or -1 I wish I could go into more detail, but I could spend a whole art. explaining how this works, if you want me to explain further, either leave me a message on the MAAUG BBS, or corner me at a meeting, in the meantime, remember the only limit to the potential of your Atari, is that of your imagination!!! Happy Computing...

<Wizard>  
Positions:

Joystick

	14	
10		6
	11	15
		7
9		5
	13	

Trigger Positions: 0-Trigger pressed  
1-No trigger pressed





# How to Set up MIDI

by Dean Richard

I use my 520ST for many things, but one of the primary reasons that I bought it was to use it as a MIDI computer in my recording studio. Because I've done a lot of work in this area, John Thompson asked me to write an article on hooking up synthesizers to the ST via MIDI. In the upcoming issues of the MAAUG Newsletter I'll try to answer questions for those of you who need help. The first thing you need to know is how to hook up a single MIDI synthesizer to the ST. You must be sure that the synthesizer you have has MIDI jacks. You need to have two

DIN cords. These are very similar to 5 pin DIN cords, but you should be sure to use cables made especially for MIDI. If you only have one synthesizer, the hookup is very straightforward. You should first plug one cable into the MIDI Out of the ST and plug the other end into the MIDI In of the synthesizer. The other cable should go from the MIDI Out of the synthesizer to the MIDI In of the ST. This setup will allow you to input your MIDI data from the keyboard to the ST, and for the synthesizer to be controlled by the ST. The setup can get much more complicated when the ST is used with more than one synthesizer. There are a lot of different ways to hookup

multiple synthesizers, and it will depend on your use as to how you want to hook them up. I'll describe one way to hook up two synthesizers to the ST. If other MAAUG members ask me to, in the future I can describe more complex setups. For this

example, I'll assume that we want to hook up one keyboard to the ST to input MIDI data (It's referred to as the MASTER keyboard), and then want the ST to control both synthesizers. There is one thing that's required before the two synths can be hooked up. One of the two synths must have a third MIDI jack besides the required MIDI In and MIDI Out jacks. It is labelled MIDI Thru. If neither synth has a MIDI Thru Jack, then an accessory called a MIDI Thru box is required. If one of the synths has a MIDI Thru jack, three MIDI cables are required to hook them up. First take a MIDI cable from the MIDI Out Jack of the Master keyboard to the MIDI In jack of the ST. Then take a MIDI cable from the MIDI Out of the ST to the MIDI In jack of the synth with the Thru Jack. Take a MIDI cable from the MIDI Thru jack to the MIDI In jack of the second synthesizer. If neither synth has a MIDI Thru jack, then four MIDI cables and the MIDI Thru box are required. MIDI Thru boxes come in various sizes, with varying numbers of inputs and outputs, and at varying prices. To hook up two synths, you must have at least one MIDI input and two MIDI outputs on the Thru box. Hook the MIDI Out of the Master keyboard to the MIDI In of the ST. Hook the MIDI Out of the ST to the MIDI In of the MIDI Thru box. Hook the two MIDI Ins of the synthesizers to two of the MIDI Outs of the Thru box. The method of hooking up two synthesizers to the ST may

some more explaining. The first thing to understand is that the MIDI data that goes to a synth or computer does NOT go back out via the MIDI Out Jack. That is what the MIDI Thru is for. MIDI Thru does not modify the data in any way, it just accepts it and echoes it. The MIDI Out jack is strictly for MIDI data modified or created in that particular computer or synth, and allows it to be the controller of whatever is on the other end of the MIDI cable. This was confusing to me when I first started doing MIDI setups, but after a while it's clearer. I hope this helps those of you who have wanted to hook up synthesizers to the ST. I haven't said anything about MIDI channels or MIDI modes, which are also factors that apply to these MIDI setups, especially with more than one synth. I don't want to get too complex right away, and if people are interested in this, I'll go on in more detail in future articles.





**NEWSLETTER INFORMATION**

This newsletter is produced by members of the Madison Area Atari Users Group, An Association of individuals with a common interest in using and programming Atari computers and other equipment. The Madison Area Atari Users Group is not affiliated with Atari Corporation or any other commercial organization. All articles are written and donated by the membership. Occasionally, an article will be reprinted from another user group with appropriate credit to that user group. We extend the same courtesy to those groups who would like to reproduce portions of this newsletter. All articles reflect the opinions of the the author and do not necessarily reflect the opinions of the Madison Area Atari Users Group.

Your contribution of articles is actively encouraged. You may submit your articles by uploading them to the MAAUG BBS at 244-5642 or you may submit them on hardcopy printout. Picture files may also be upladed for incorporation with the text. the deadline for all submissions is the 25th day of each month for inclusion in the next issue. For more information, write to Madison Area Atari Users Group Newsletter, P.O. Box 56191, Madison, WI 53705.

**MEMBERSHIP INFORMATION**

Membership is open to individuals and families who are interested in using and programming Atari coputers. Your membership includes a subscription to this newsletter and access to the groups Public Domain Cassette, diskette, and publication libraries, as well as club level access to files on the MAAUG BBS. In addition to attending group functions and checking out materials, members are entitled to vote in club elections and to hold elected positions in the organization.

**MEETING INFORMATION**

MAAUG meetings are held once each month on the second Tuesday of the month. Meetings are generally held in the IMC of West High School, Madison, WI. The meeting room doors open at 7:00 pm and the meetings start promptly at 7:30 pm.

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